REMARKS

Applicants gratefully acknowledge the allowance of claims 17-25 and 37-45.

Claims 1, 6, 26, 31, 46, 50, 57, and 62 have been amended. Claims 52-56 have been canceled. Claims 1-51 and 57-65 are pending in this application. Applicants reserve the right to pursue the original claims and other claims in this and other applications.

Claims 6 and 31 stand rejected under 35 U.S.C. § 112, second paragraph, for having insufficient antecedent basis for the limitation "said imager array." The claims have been amended to address the concerns raised in the Office Action. Applicants respectfully request that the rejection of these claims be withdrawn.

Claims 1-14, 16, 26-34, 36, 46-51, and 57-65 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Pappas et al. (U.S. Patent No. 5,818,572) ("Pappas"). Claims 1 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pappas. The rejections are respectfully traversed.

Claim 1 recites a method of testing a modulation transfer function (MTF) of an imager comprising "exposing the imager to a photon source; measuring an output of first and second photosensitive cells, wherein the first cell is blocked from the photon source by a layer of opaque material formed within the imager; and calculating the MTF using the measured outputs."

Claim 26 recites a method of testing a modulation transfer function (MTF) of an imager comprising "exposing a first and second predetermined number of photosensitive cells in at least one of a row and column of adjacent photosensitive cells of the imager to a photon source, wherein the first predetermined number of photosensitive cells are blocked from the photon source by a layer of opaque material

formed within the imager; measuring an output of the first and second predetermined number of photosensitive cells; and calculating the MTF using the measured outputs."

Claim 46 recites a computer program stored on a computer readable storage medium for operating a computer to perform a method of testing an imager array comprising "exposing the imager to a photon source; measuring an output of first and second photosensitive cells, wherein the first cell is blocked from the photon source by a layer of opaque material formed within the imager; and calculating the MTF using the measured outputs."

Claim 50 recites a computer program stored on a computer readable storage medium for operating a computer to perform a method of testing an imager array, the method comprising "exposing a first and second predetermined number of photosensitive cells in at least one of a row and column of adjacent photosensitive cells of the imager to a photon source, wherein the first predetermined number of photosensitive cells are blocked from the photon source by a layer of opaque material formed within the imager; measuring an output of the first and second predetermined number of photosensitive cells; and calculating the MTF using the measured outputs."

Claim 57 recites a test system for an imager array containing photosensitive cells, the test system comprising "a light source for exposing at least a portion of the imager array to photons; a processor coupled to an output of first and second adjacent photosensitive cells of said array, wherein the first cell is blocked from the photon source by a layer of opaque material formed within the imager, said processor determining a modulation transfer function of said imager array from the output signal of said blocked and unblocked photosensitive cells."

Claim 62 recites a test system for an imager array containing photosensitive cells, the test system comprising "a light source for exposing at least a portion of the imager array to photons; a processor coupled to an output of a first and second predetermined number of photosensitive cells in at least one of a row and column of adjacent photosensitive cells of said array, wherein the first predetermined number of photosensitive cells are blocked from the light source by a layer of opaque material formed within the imager, said processor determining a modulation transfer function of said imager array from the output signal of said blocked and unblocked photosensitive cells." Applicants respectfully submit that Pappas fails to disclose, teach, or suggest the limitations recited in claims 1, 26, 46, 50, 57, and 62.

Pappas discloses that on MTF is measured "by focusing a square or rectangular target image onto the sensor and deriving the Modulation Transfer Function in two directions simultaneously from an output of the sensor." (Pappas, Abstract). The square or rectangular target image is a target generator 18 comprising a target mask 26 having an aperture 28. (Pappas, col. 3, ll 48-49). The target mask 26 "functions as a background plate and the aperture 28 functions as a target plate." (Pappas, col. 3, ll 52-54). "The target image is tilted with respect to the sensor's focal plane array such that the target image's edges cross different detector elements at different phases." (Pappas, Abstract). Horizontal and vertical MTF measurements are taken at the edges of the target 36. (Pappas, col. 3, ll 41-42).

Applicants respectfully submit that Pappas does not disclose "measuring an output of first ... photosensitive cells, wherein the first cell is blocked from the photon source by a layer of opaque material formed within the imager; and calculating the MTF using the measured outputs," as recited by claim 1 and similarly claims 26, 46, 50, 57, and 62. Pappas discloses changing the angle of the target generator "with respect to the horizontal field of view so as to create a different phase in each detector element 14

it crosses over" and taking horizontal and vertical MTF measurements at the edges of the target. (Pappas, col. 4, ll 42-45). There is no indication in Pappas that measurements are taken of photosensitive cells that are blocked from a photon source by a layer of opaque material formed within the imager, and calculating the MTF using those measured outputs. Please note that Pappas' mask 26 is not within the image sensor 10. (Pappas, FIG. 1). As such, Pappas fails to disclose, teach, or suggest the inventions of claims 1, 26, 46, 50, 57, and 62.

Claims 2-16 depend from claim 1 and are allowable for at least the same reasons. Claims 27-36 depend from claim 26 and are allowable for at least the same reasons. Claims 47-49 depend from claim 46 and are allowable for at least the same reasons. Claim 51 depends from claim 50 and is allowable for at least the same reasons. Claims 58-61 depend from claim 57 and are allowable for at least the same reasons. Claims 63-65 depend from claim 62 and are allowable for at least the same reasons. Accordingly, Applicants respectfully requests the withdrawal of the § 102 and § 103 rejections and allowance of the claims.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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